CLAIMS

What is claimed is:

1. A computer program product including a computer readable medium having computer readable program code embodied thereon for the authoring of rules, the computer program product comprising statements for composing a rule such that the rule can be decomposed into a subset of instructions that are processed concurrently to facilitate at least one of testing assertions, enforcing constraints using runtime information, making inferences, performing correlation, and communicating results of dynamic tests to other components.

2. The product of claim 1, at least one of the statements facilitates activating the rule for processing.

3. The product of claim 1, at least one of the statements facilitates activating the rule according to least one of a regular basis and detection of an event.

4. The product of claim 1, one or more of the statements facilitates performing a continuous polling loop.

5. The product of claim 4, the polling loop is performed according to a polling interval such that the polling loop executes and then waits for the polling interval to expire before executing a next polling loop.

6. The product of claim 4, the polling loop is facilitated according to a keyword that includes at least one of a variable, an object, and a constant.

7. The product of claim 1, the rule executes concurrently with another rule.

8. The product of claim 1, at least one of the statements facilitate creating at least one of an implicit task and an explicit task.

9. The product of claim 8, at least one of the statements facilitates explicit task declaration of an explicit task object for the explicit task, and use of a statement that launches concurrent execution of the rule.

10. The product of claim 1, at least one of the statements facilitates creating a task using one of a startup attribute and a signaling attribute.

11. The product of claim 1, at least one of the statements facilitates allowing the rule to invoke another rule.

12. The product of claim 1, at least one of the statements facilitates separating rule logic data from rule configuration data using at least one parameter.

13. The product of claim 12, the at least one parameter is passed by one of a value and by reference.

14. The product of claim 1, the rule is an independent rule authored using at least one of an infinite loop and an event-driven callback.

15. The product of claim 14, the event-driven callback facilitates asynchronous delivery of a data item from a URI-based source.

16. The product of claim 1, the rule is subscribed to reveal events at one time.

17. The product of claim 1, at least one of the statements facilitates collecting at least two data items substantially simultaneously, when the at least two data items become available.

18. A computer system according to claim 1.

19. The product of claim 1, one or more of the statements facilitates at least one of automated rule instantiation based on XML, built-in polling without threading or concurrency considerations, and automated logging of rule instance information in alerts.

20. A computer program product including a computer readable medium having computer readable program code embodied thereon for providing a method of authoring rules for asynchronous processing, the method comprising, composing a rule of one or more statements that facilitate decomposing the rule into a subset of instructions that are processed concurrently, the rules processed to perform at least one of testing assertions, enforcing constraints using runtime information, making inferences, performing correlation, and communicating results of dynamic tests to other components.

21. The method of claim 20, further comprising extensioning of the rule with constructs without modifying the rule, the extensioning is performed by one of,

extending the rule to allow an alternate test before allowing the rule to fail;
constraining the rule to make the test more stringent; and
hooking the rule.

22. The method of claim 20, further comprising forwarding a log event to a supervisor in accordance with the one or more statements of the rule.

23. The method of claim 20, further comprising forwarding a log event using a function in accordance with the one or more statements of the rule, the log event forwarded to a supervisor that deployed the rule from which the function is called.

24. The method of claim 20, further comprising forwarding an alert using a function in accordance with the one or more statements of the rule, the alert forwarded to a supervisor that deployed the rule from which the function is called.

25. The method of claim 20, further comprising,

consolidating a plurality of events; and

reporting a consolidated event summary based on the consolidated events according to a predetermined time interval.

26. The method of claim 20, further comprising monitoring system hardware and software resources in accordance with the one or more statements of the rule.

27. A computer program product including a computer readable medium having computer readable program code embodied thereon for providing a method of authoring rules for asynchronous processing, the method comprising, composing a rule of one or more statements that facilitate decomposing the rule into a subset of instructions that are independently scheduled for execution representative of an infinite loop, the rules processed to perform at least one of testing assertions, enforcing constraints using runtime information, making inferences, performing correlation, and communicating results of dynamic tests to other components.